

# INSTALLATION & OPERATION GUIDE

818 SPORT MODELS



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A Z U R E

# Technical Manual

818 Sport Models

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# Technical Manual

## 818 Sport

# Section 1

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# Range Overview

**A range of compact countertop water dispensers, available in two different operational types:**

- |          |                    |                            |
|----------|--------------------|----------------------------|
| • 818    | Cold and Ambient   | (Low Pressure Tank System) |
| • 818 CS | Cold and Sparkling | (Direct Chill System)      |

**Both types are available as:**

- **Countertop**
- **With optional base cabinet (Close fitting to create Floor Standing style appearance)**

## All Types

All B&O 818 Sport models are self contained machines with robust steel framed cabinets and attractively injection moulded plastic front, side and top panels. There is sufficient space internally for most filters to be fitted behind the right side panel.

An IEC Power Lead is supplied for connection to the IEC socket found on the rear of all models (An additional Schuko type is supplied for the European market).

### Optional Floorstanding Base Cabinet

A sturdy, steel-sided cabinet with an opening door and service access ports in the rear panel. Adjustable feet are standard.

### 818 Cold and Ambient Model

Water is fed into the insulated Cold Tank under mains pressure. We strongly recommend fitting a Pressure Reducing Valve is fitted to all supplies to regulate the pressure to 3.5 bar/355 kPa. Water bypasses the cold tank for the ambient dispense option. The cold tank is chilled via the outer evaporation coil of the capillary controlled refrigeration compression system.

Dispense is at inlet pressure via the DC current operated solenoid valves.

The Cold Temperature is thermostatically controlled via the adjustment screw on the back of the machine. This setting is factory set and is not necessary to adjust in most cases (see Controls).

The Cold Tank can be drained via the lower of the two Drain Ports on the rear of the machine.

### 818 Cold and Sparkling Model

A Direct Chill cold water dispenser where water is used as the cooling medium in the Direct Chill tank. This is automatically filled and controlled by the level control system upon installation. This tank is then chilled via the outer evaporation coil of the capillary controlled refrigeration compression system.

Water is chilled as it passes through the coil immediately before dispense or being pumped under pressure into the carbonator which it fitted inside the same coil. The carbonator is also level controlled and allows the sparkling effect to occur through saturation with CO<sub>2</sub>.

The level control system also incorporates a leak detection device within the cabinet which switches the machine off in the event of detecting water.

The Cold Temperature is thermostatically controlled via the adjustment screw on the back of the machine. This is factory set and is not necessary to adjust in most cases (see Controls).

The Cold Tank can be drained via the upper of the two Drain Parts on the rear of the machine.

# Controls

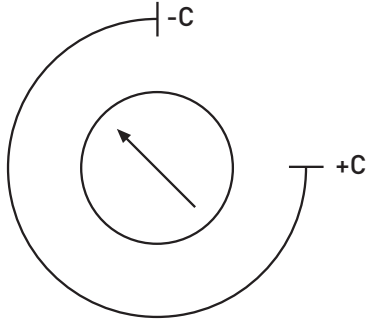
## Cold & Ambient Models

On/Off switch – at upper rear of machine.

Switches Cooling Operation on/off.

Cold Thermostat – at rear of machine.

Factory set to:



NB: Turn clockwise to decrease water temperature

Ambient Button	Press to dispense Ambient water
Cold Button	Press to dispense Cold water
Green LED (LH)	Colours to show Cooling Operation is switched on
Green LED (RH)	Colours to show when compressor is operating/water is above set point
10A Fuse	On rear of machine, integral with IEC socket

## Cold and Sparkling Models

On/Off switches – at upper rear of machine

Cold – switches Cooling Operation on/off

Soda – switches Sparkling Operation on/off

The thermostat setting is the same as for the Cold & Ambient model as above.

Sparkling Button	Press to dispense Sparkling Water
Cold Button	Press to dispense Cold Water
Green LED (LH)	Colours to show Cooling Operation is switched on
Green LED (RH)	Shows when compressor is operating
Yellow LED (bottom RH)	Colours to show the Sparkling Operation is switched on
10A Fuse	On rear of machine, integral with IEC socket

## Base Cabinet

Either 818 model is designed to fit straight onto the top of the cabinet. Ensure the feet of the machine securely locate in the nesting positions.

The Door Panel is hinged and fastened with Magnetic Catches. The Cabinet can be levelled using the adjustable feet. Service entry points are positioned in the back of the cabinet.

Every Base Cabinet is supplied with a Level Sensor Kit, comprising:

- Water Container
- Sensor Unit (c/w 2 no. CR3032 batteries)
- Drip Tray with Drainage Outlet

Simply exchange the Drip Trays, connect the Drainage Tubing, that is pre-fitted down the front left hand side of the cabinet, into the top of the container and remove the transit seal from around the float shaft to enable operation. A warning tone will sound when the water rises. Upon emptying the container, the warning tone will stop.

# Specifications

COOLING SYSTEM	All	High efficiency compression system with capillary control. Premium quality long life hermetic compressor. Compact internal condenser – fan assisted for greater efficiency. Environmentally friendly R134A refrigerant.
	818	High volume 3.5 litre stainless steel pressurised cold tank for optimum water capacity on demand and hygiene. Low sanitisation and maintenance. Insulated tank for energy conservation. Large volume output performance via high pressure valves. Thermostatically controlled chilled water temperature (range down to 1°C minimum). Integrated stainless steel carbonator on sparkling water machine option.
	818 CS	3.5 litre stainless steel chiller tank with level control containing stainless steel cold water direct chill coil. Stainless steel carbonator tank with independent level control fitted inside coil. High capacity, low voltage diaphragm inlet pump.
COLD TEMPERATURE		2°C to 11°C.
THROUGHPUT PER HOUR		18 litres cold ← 12°C / 16 litres sparkling ← 12°C.
DISPENSE		Ergonomically designed and situated light touch sensitive controls.
MAXIMUM RUNNING POWER CONSUMPTION		85 watt. Cold and ambient.
		180 watt. Cold and sparkling.
POWER REQUIREMENTS		230 volt/50Hz supply required.
POWER SUPPLY		IEC power socket.
WATER CONNECTION		1/4 inch quick connection.
CO <sub>2</sub> CONNECTION		1/4 inch quick connection.
COUNTERTOP DIMENSIONS		(w x d x h) 320 x 440 x 415mm
WEIGHTS	818	14.5 kg
	818 CS	21.0 kg



# Technical Manual

## 818 Sport

# Section 2

# 818 Sport Cold and Ambient Model

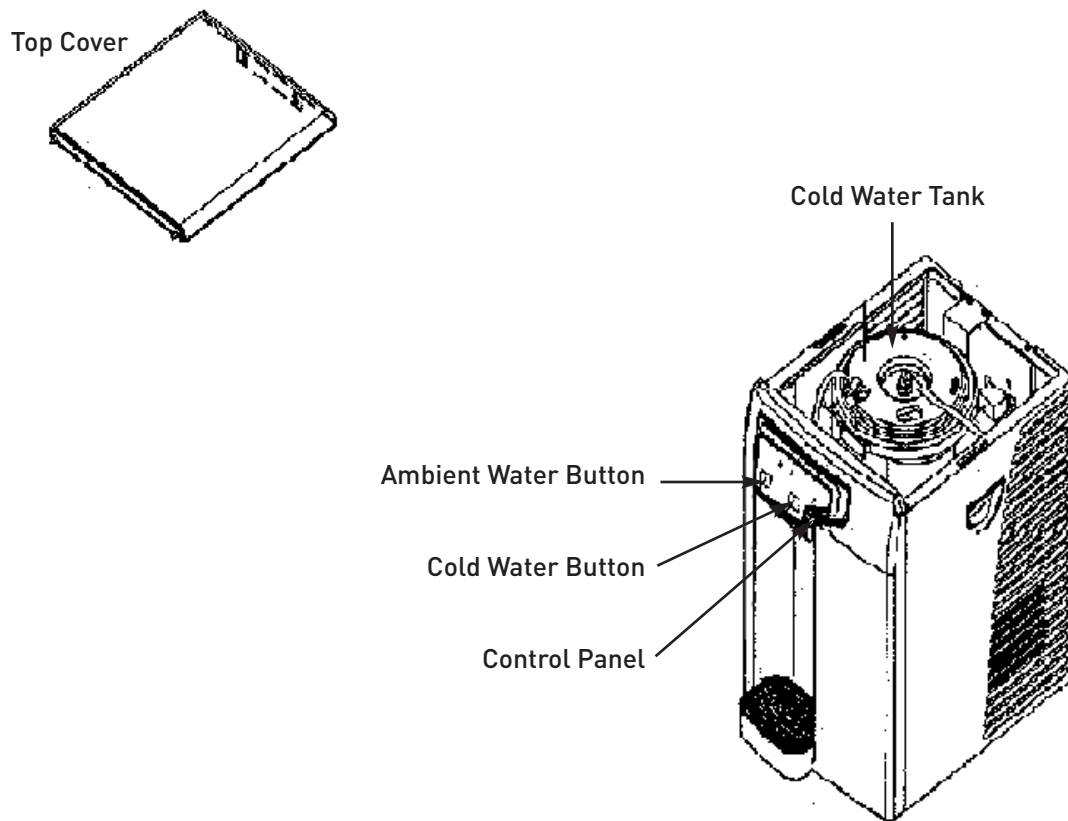


## Operation

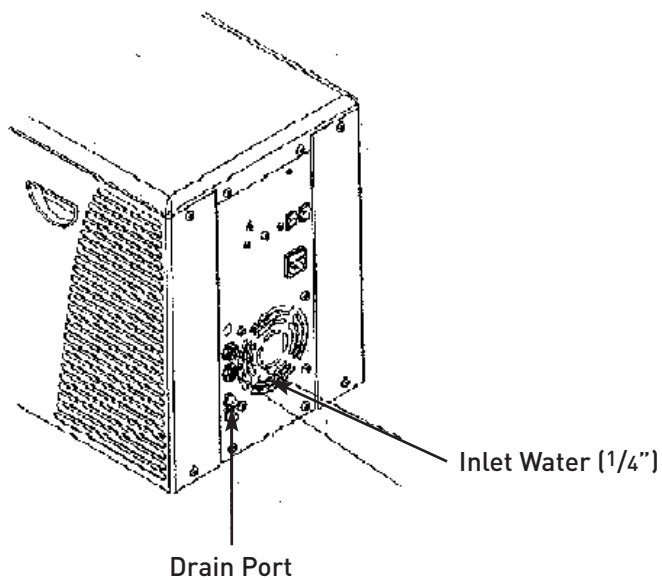
### Contents:

- Major Components
- Water Connection
- Operation
- Safety
- Sanitisation Guide [See section 3]

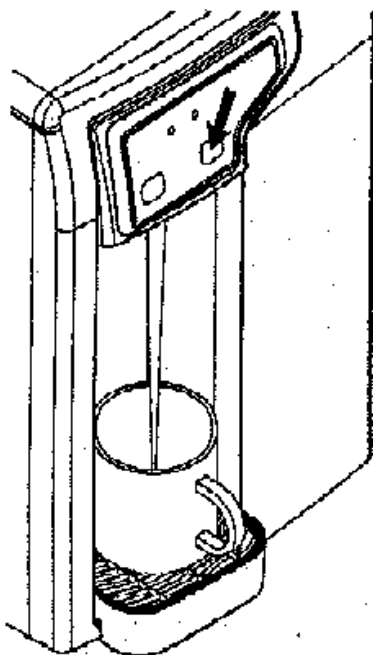
## Major Components



## Water Connection

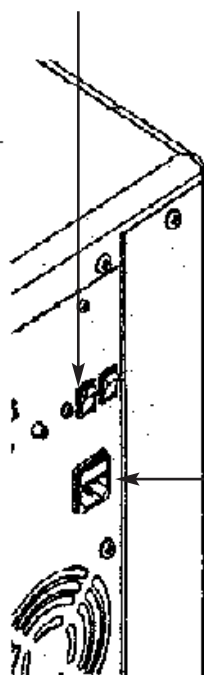


## Operation



1. After connecting the water the tank will begin to fill. Put the plug in the socket and the indicator lights will be lit. Try pressing the cold water button to see if water comes out. When water flows out of the dispenser, the cold power switch may be turned on and it is ready to use. Please do not turn on the power switch until water flows out of the machine, to avoid damage. Allow up to one hour for minimum temperature water. Flush through 10 litres of water.

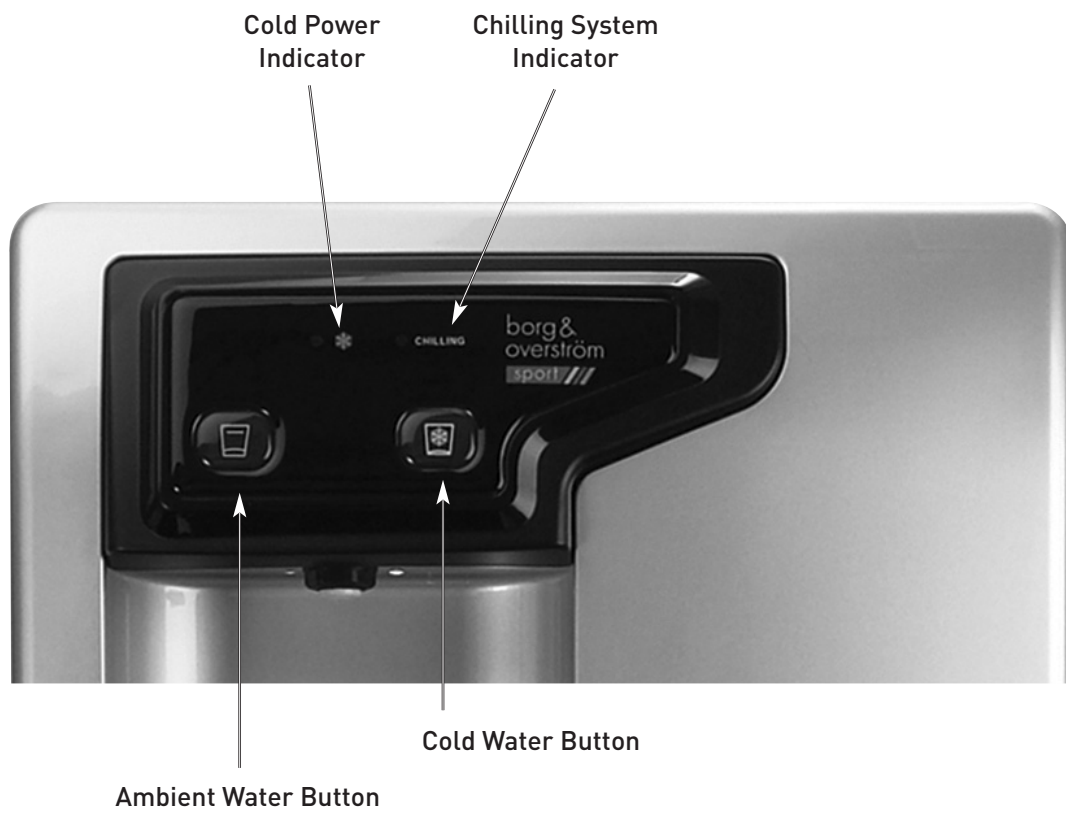
Cold Power Switch



2. When the cold power switch is turned on, the chilling LED will be on. When the set temperature is reached, the LED will go out.

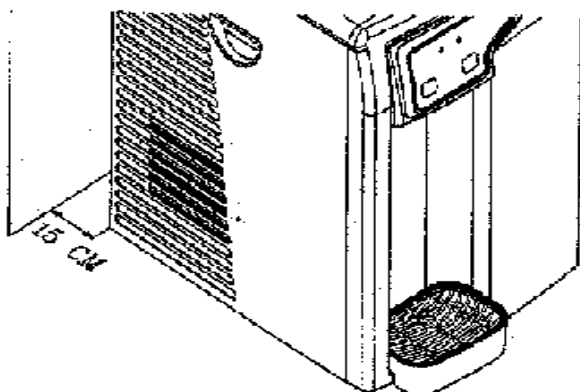
Fused IEC Socket

3. Press the ambient water button for ambient water.

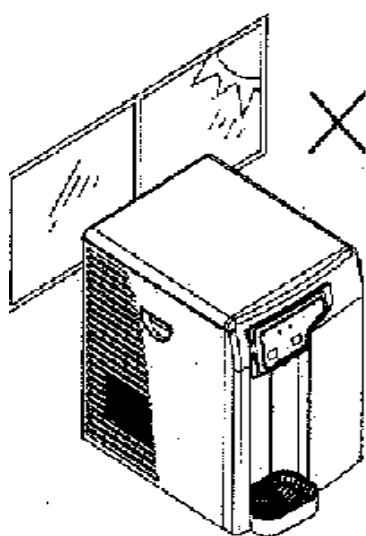


4. Press the cold water button for cold water.

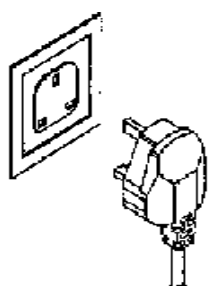
## Safety



Leave a space no less than 15cm between the wall and dispenser.



Keep the machine away from sunlight, heat and moisture.



Be sure to use single outlet socket with correct power voltage. Plug the power cord directly into the electrical socket.

# 818CS

## Cold and Sparkling Model

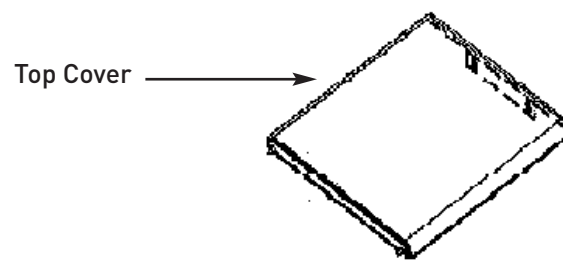


## Operation

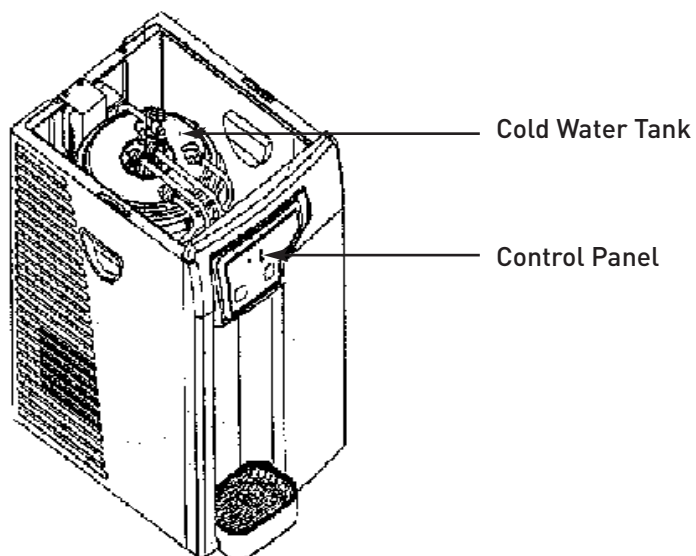
### Contents:

- Major Components
- Water and CO<sub>2</sub> Connection
- Cold Water Operation
- CO<sub>2</sub> Bottle Installation
- Sparkling Operation
- Safety
- Leak Detection
- Sanitisation Guide [See Section 3]

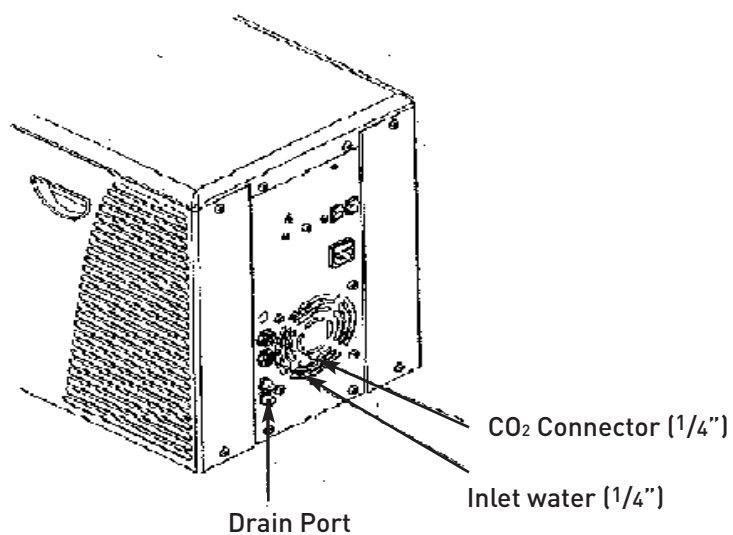
## Major Components



Sparkling Water Tank

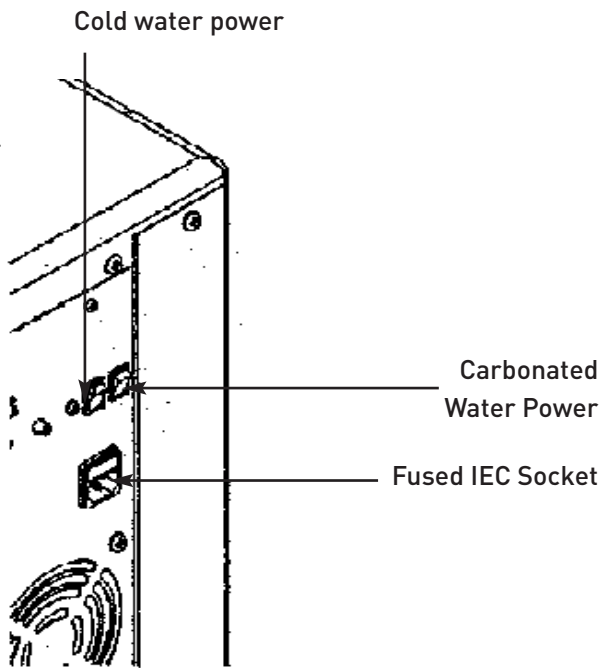


## Water and CO<sub>2</sub> Connection

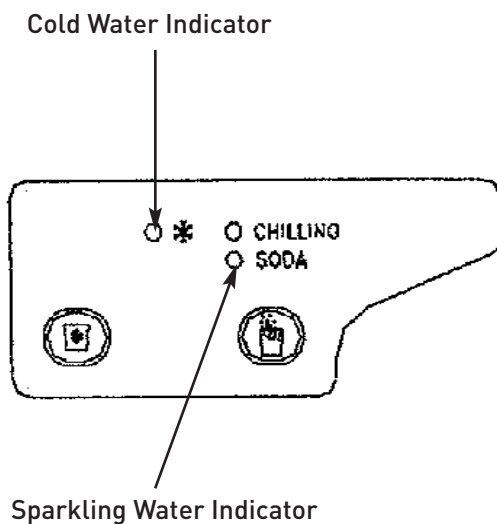




## Cold Water Operation



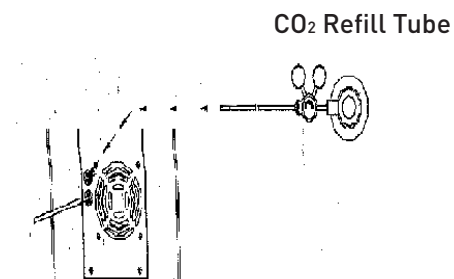
1. After connecting the water the tank will begin to fill with water. Plug in the power and the indicator LEDs will be on. Try pressing the cold button until the water comes out. When water flows out of the dispenser, the power switch may be turned on and the machine is ready to use. Allow up to one hour for minimum temperature water.



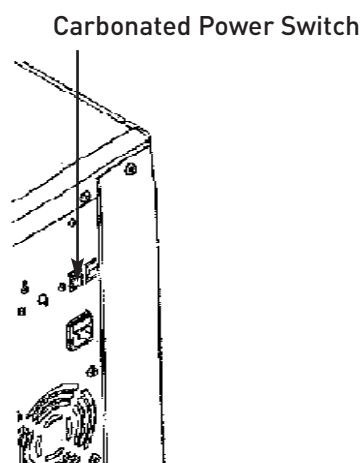
2. Turn on the cold power switch and the cold water and chilling LEDs will show. The temperature of cold water can be set from 4°C to 10°C. When the chilling LED is off the set temperature has been reached.

## CO<sub>2</sub> Bottle Installation

1. Attach the regulator to the disposable CO<sub>2</sub> bottle, ensuring the regulator is closed.
2. Connect the assembled CO<sub>2</sub> bottle and regulator to the machine.

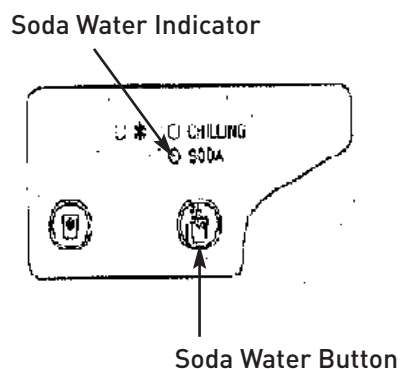


3. Do not open the regulator valve until the Carbonated switch has been turned on.



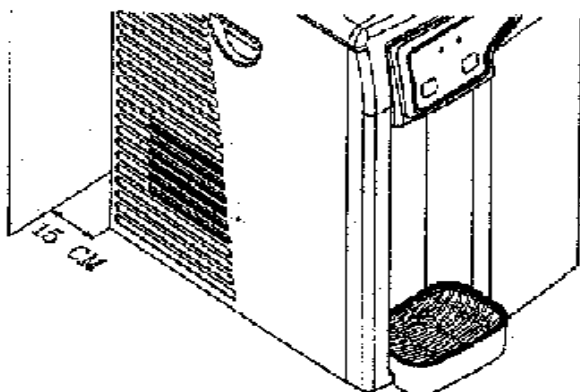
1. After completing the water installation, turn on the soda power switch. When the pump switches off open the CO<sub>2</sub> regulator. Do not exceed 5 bar pressure.

2. Initially please flush through approximately 10 litres of water.

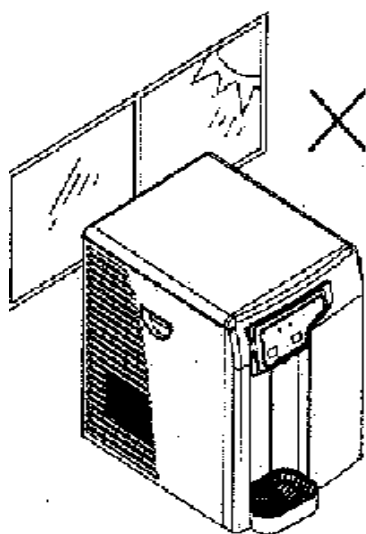


3. It will be necessary to leave the machine for up to one hour for sparkling water to develop, by absorbing the CO<sub>2</sub>.

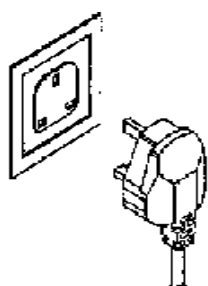
## Safety



Leave a space no less than 15cm between the wall and dispenser.



Keep the machine away from sunlight, heat and moisture.



Be sure to use single outlet socket with correct power voltage. Plug the power cord directly into the electrical socket.

## Leak Detection

### Notice:

This machine is equipped with a leakage detection device. When leaking is detected, the power will be cut off automatically.

When the power has been cut off:

1. Unplug the machine, then remove the left side plate.
2. Detection probe found in the bottom front left hand corner and dry probes and machine with a dry cloth.
3. Plug in the machine to test if the leaking has stopped.

# Technical Manual

## 818 Sport

# Section 3

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# Sanitisation Guide – 818 CS Water Cooler

1. Turn off incoming mains water, briefly press dispense button(s) to release internal water pressure from the machine and remove filter.
2. Add 100 ml of a proprietary sanitisation fluid to a clean and empty service filter cartridge/dosing device and connect into machine. Always ensure to use a reputable branded sanitisation fluid for effective action. Please note: We recommend using a 3% Hydrogen Peroxide concentration base sanitising fluid of reputable manufacture to the appropriate dilution ratios as supplied with the product or typically 1:30 max. (Stronger concentrations will require larger dilution rates).

Please remember that most sanitisation fluids (including ozone) contain an active caustic/alkaline agent. Always use responsibly and with care remembering that due to its alkaline nature unnecessary concentrated/prolonged contact with any materials, including metals, can cause damage. Always rinse all contact surfaces after use with clean water.

3. Turn on incoming water, allow service cartridge/doser to fill and then draw off at least 1 litre of water, using the cold button only, for the machine to ingest the solution. Leave solution for 10 minutes inside machine for sanitisation to take effect. During this time thoroughly clean the machine externally. For this we recommend the use of proprietary disposable sanitisation wipes. Pay particular attention to the dispense faucet and the push button controls. Remember to include the drip tray. If a Waste Overflow System is fitted, this may benefit from flushing through with a small amount of dilute sanitisation fluid.
4. After a satisfactory period of time, flush the machine with at least 10 litres of clean water to clear any trace of the sanitisation fluid. Optionally use test strips to check.
5. Turn off water and remove the service filter/doser and fit a new filter of reputable quality and suited to the site conditions. We recommend pre-flushing the new filter to reduce any risk of any loose media in the filter entering the solenoid valves and possibly causing a malfunction. Retain the service cartridge/doser for reuse.
6. Turn on incoming water supply and carefully ensure the thorough sanitising of the outside of the machine is completed. Reconnect power and reset any service/filter life monitors accordingly. Ensure any hot tank inlet is reconnected and the tank is purged of air before switching heater on again.

**ALWAYS ENSURE ANY RESIDUAL AIR HAS BEEN PURGED FROM BOTH COLD AND SPARKLING SYSTEMS AND ALL IS OPERATIONAL BEFORE LEAVING.**

# Sanitisation Guide – 818 Water Cooler

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**ALWAYS ENSURE ANY RESIDUAL AIR HAS BEEN PURGED FROM BOTH COLD AND AMBIENT SYSTEMS AND ALL IS OPERATIONAL BEFORE LEAVING.**

# Technical Manual

## 818 Sport

# Section 4



**8 1 8 M O D E L S O N L Y**

# Trouble Shooting Fault Diagnosis Guide 1

## No Water Dispenses

Problem/ Report	Possible Cause	Suggested Action
<b>No Water Dispenses</b>		
From Ambient Valve	Water Supply turned off	Check all Taps/valves/ filters on incoming supply are fitted and are turned on.
{818 Cold & Ambient only}	No Electricity/Power Supply	Check power cord connected and live and machine is switched on.
	"Waterblock" tripped off (and Tank empty)	Reset "Waterblock" (and check for any leaks).
		Check valve action. Carefully dismantle valve and clean out/part replace/complete replace as needed.
	Faulty Solenoid Valve	Valve clicking but no water-Check if hole in centre of washer is clear.
		Valve not clicking-Check whether voltage is present when operated (Caution-High Voltage). If not present check wiring for continuity and /or replace PCB.
		If present, replace solenoid coil/whole valve coil/whole valve assembly complete.
From Cold Valve	Firstly all as for Ambient Tap	Carry out checks and actions as for ambient tap.
	Chiller tank frozen - Faulty Thermostat	Thaw out and check and replace Cold Water temperature set point.
	Chiller tank Frozen-faulty air pump (818CS only)	Thaw out and check and replace Air pump and or check electricity supply to pump present.
	Leak detector has switched the machine off (818CS only)	Check for internal leakage, ensure probes are dry and switched off briefly and on again to reset.

**8 1 8 M O D E L S O N L Y**

# Trouble Shooting Fault Diagnosis Guide 2

## No Water Dispenses continued

No Water Dispenses continued		
From Ambient or Cold Valve	Button not being pressed enough	Press button firmly N.B. This could be caused by a surrounding cold environment making the action stiffer
	Faulty PCB	Replace PCB
From Sparkling Valve	Firstly as for Ambient and or Cold Dispense	Carry out the checks and actions as for Ambient Dispense
	Low or no CO <sub>2</sub>	Check and replace cylinder as necessary
	Pump not operating	Check carbonator level Control Systems
		Check probes connected/leads attached. Check power supply to pump
	Carbonator Tank over pressurised with CO <sub>2</sub>	Switch Sparkling System off, shut off CO <sub>2</sub> supply and release CO <sub>2</sub> from carbonator. Switch Sparkling system on the check pump operation. If normal Open CO <sub>2</sub> supply after pump has stopped.

**8 1 8 M O D E L S O N L Y**

## Trouble Shooting Fault Diagnosis Guide 3

### Water Dispenses but Not Correct Temperature

Problem/ Report	Possible Cause	Suggested Action
<b>Water Dispenses But Not Correct Temperature</b>		
Ambient Water too warm (818 only)	Low usage and / or fed from water supply pipe in warm ducting.	Advise user replacing external causes and solutions.
Cold water not Cold	Cooling and or Sparkling System switched off.	Check switch positions as necessary.
	Compressor runs and switching off (cool/warm to touch )- Thermostat set too high.	Decrease Cold Thermostat set point.
	Faulty Thermostat.	Replace Thermostat
	Compressor runs but not Switching off (Hot to touch).	See Appendix-Technical Advice to diagnose.
	Refrigeration problem.	
	Compressor not running at all.	Check and replace if necessary.
	No electricity power supply.	Check power cord connected and live, and machine is switched on.
	Compressor only hums slightly/ briefly.	Check and replace relays.
	Relays loose.	Check and refit relays.
	Compressor Faulty.	See Appendix-Technical Advice to diagnose.

**8 1 8 M O D E L S O N L Y**

# Trouble Shooting Fault Diagnosis Guide 4

## Water Leaks

Problem/ Report	Possible Cause	Suggested Action
<b>Water Leaks</b>		
Water lying on top edge of lower door panel and / or bottom of Cabinet.	Overflowing Drip Tray/Waste Container.	Empty Drip Tray
Water lying in bottom of machine	Faulty Level Sensors.	Check Batteries.
	Leak in supply inlet pipe-work and / or filter.	Locate and repair accordingly.
	Leak from machine water pipe work fittings.	Locate and repair accordingly.
		Check pressure and fit pressure reducing valve if needed.

**8 1 8 M O D E L S O N L Y**

# Trouble Shooting Fault Diagnosis Guide 5

## Miscellaneous

Problem/ Report	Possible Cause	Suggested Action
<b>Miscellaneous</b>		
Bleeping Noise	Level Sensor fitted and Tank full.	Empty Level Sensor Tank.
No LED Lights	No electricity to Machine.	Check power supply and reconnect as necessary (Also check out other symptoms as described separately).
	Check Fuse in IEC Socket.	Replace if necessary.
	Faulty PCB (Machine working normally otherwise).	Replace PCB.
Machine shakes on Start-Up	Compressor Starting.	
	Level Surface.	No action needed. This is quite normal.
	Uneven Surface.	Level up machine When installed with Base Cabinet.
	Missing Fixings.	Replace missing fixings.
Tripping out Electricity supply	Machine in high humidity environment.	Discuss possible repositioning with customer.
	Electrical circuitry faults.	Test, identify and address accordingly. See Electrical Diagrams.
		[Contact Azure Technical Support for further advice].

**8 1 8 M O D E L S O N L Y**

# Trouble Shooting Fault Diagnosis Guide 6

## Miscellaneous

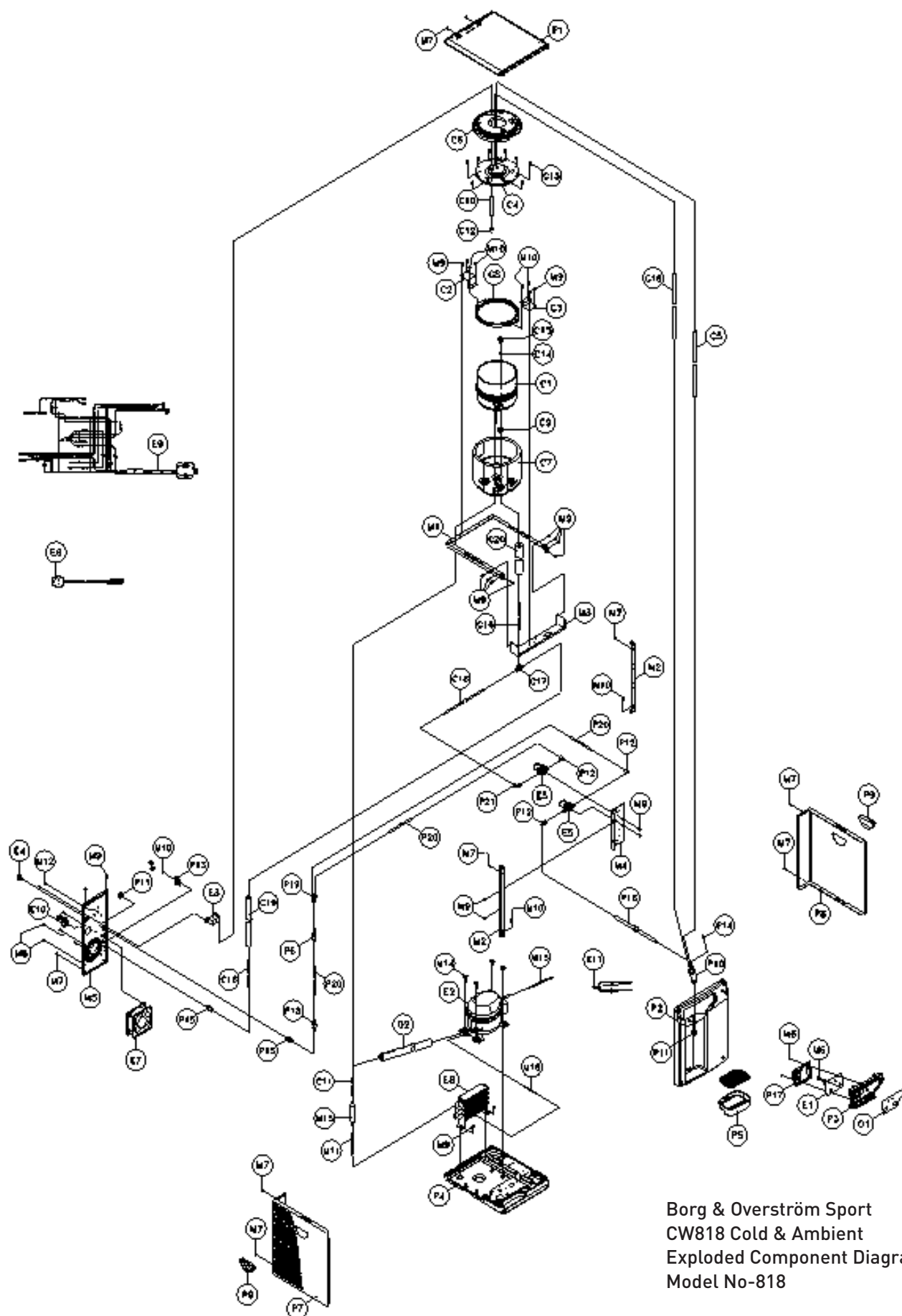
Problem/ Report	Possible Cause	Suggested Action
Slow but Continuous Water Dispense		
From Ambient or Cold Water Valve	Low incoming Water pressure.	Consider re-plumbing to alternative supply if possible.
From Sparkling Water Valve	Low/no CO <sub>2</sub> Pressure.	Fit Booster Pump Set.
		Check Regulator and or replace cylinder.
Intermittent Water Dispense		
From Ambient or Cold Water Valve	Trapped air in pipe work (especially where water pressure is low or after filter change).	Hold button on to purge air out. (This could take several minutes where pressure is low).
		Pre-flush filters.
	Button Not being pressed enough.	Press button firmly N.B. This could be caused by a surrounding cold environment making the action stiffer.
	Faulty PCB	Replace PCB.
From Ambient or Cold Water Valve and hammering noise	Fluctuating mains water pressure situation.	Contact Azure Technical Support regarding special replacement washers available.
Continuous Water Dispense		
From Ambient or Cold Water Valve	Button jammed on/faulty.	Replace PCB and or/ button Panel as needed.
	Debris blocking hole in diaphragm washer.	Dismantle Valve and clean out.

# Technical Manual

## 818 Sport

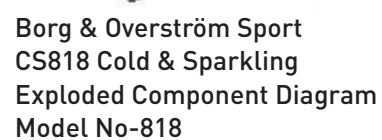
# **Section 5**

# Exploded Component Diagram 1

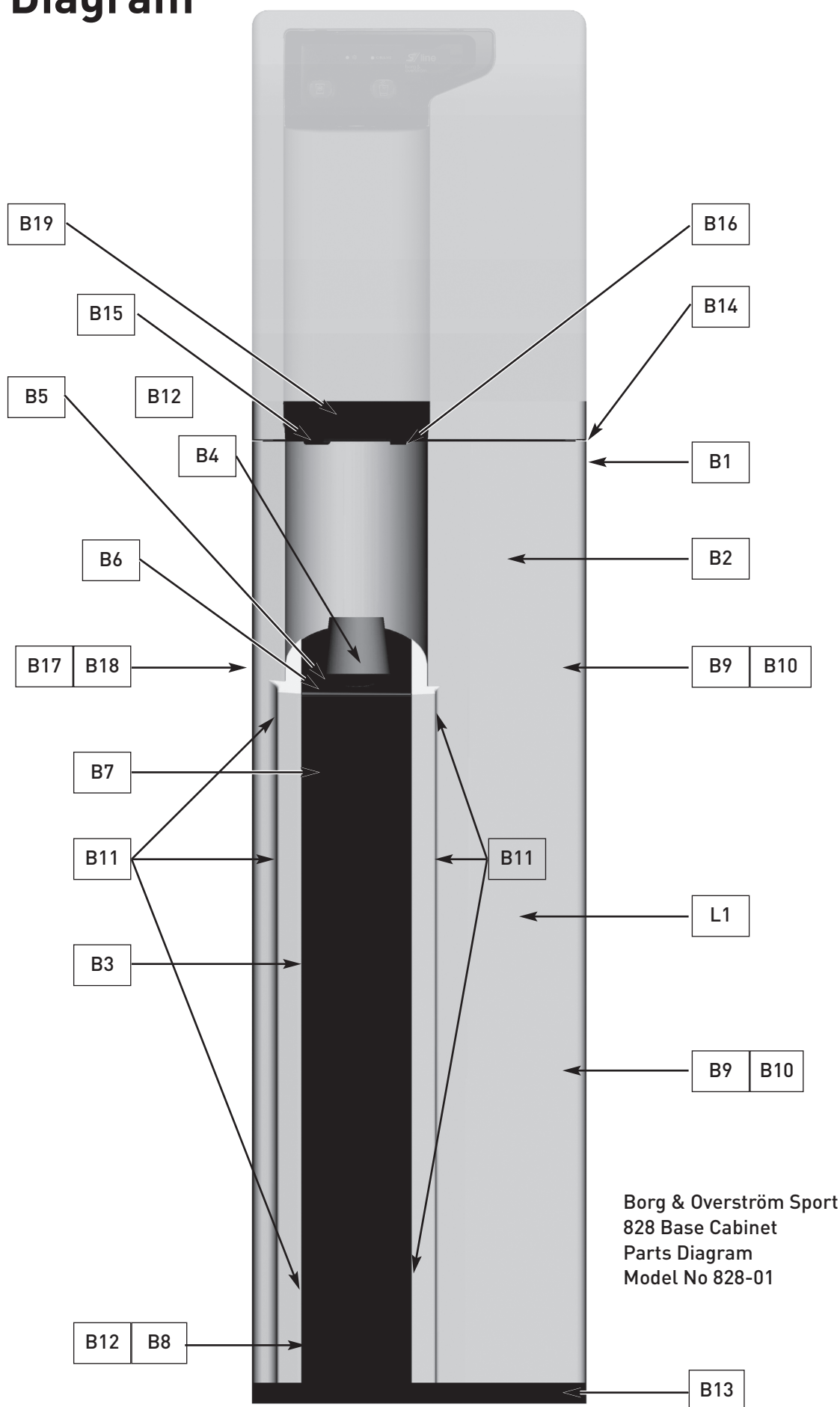


Borg & Overström Sport  
CW818 Cold & Ambient  
Exploded Component Diagram  
Model No-818

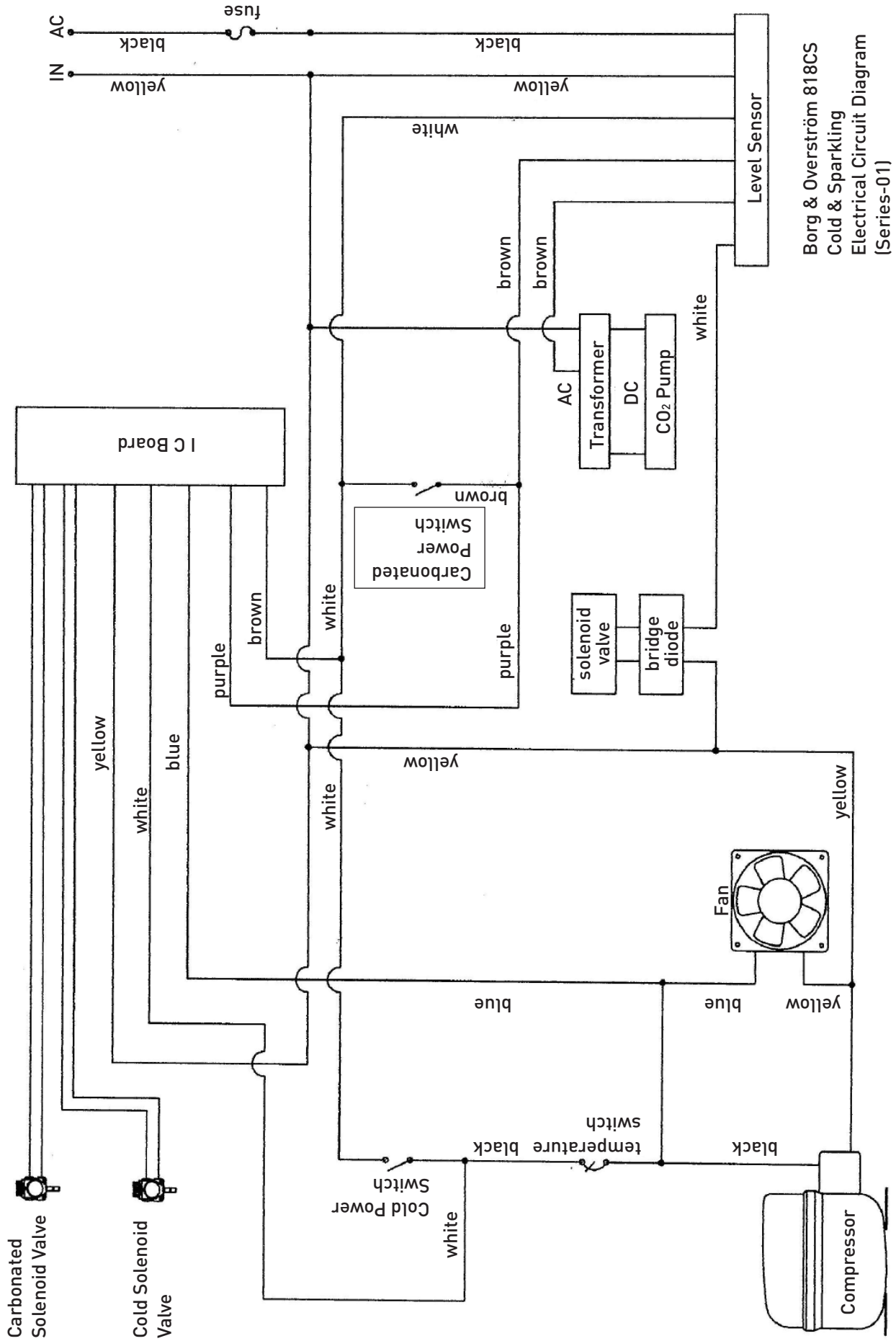




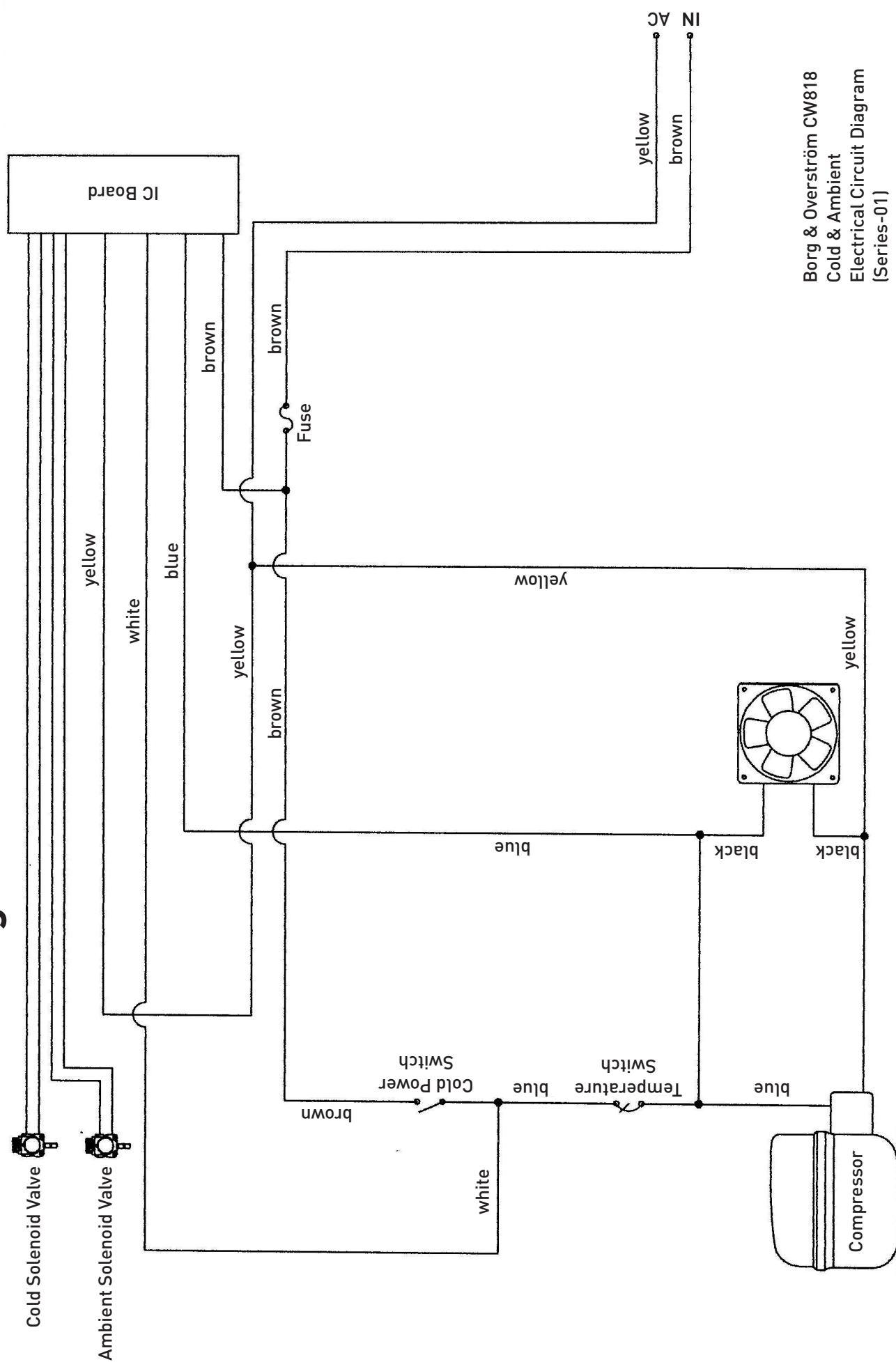
# Parts Diagram



# Electrical Circuit Diagram 1

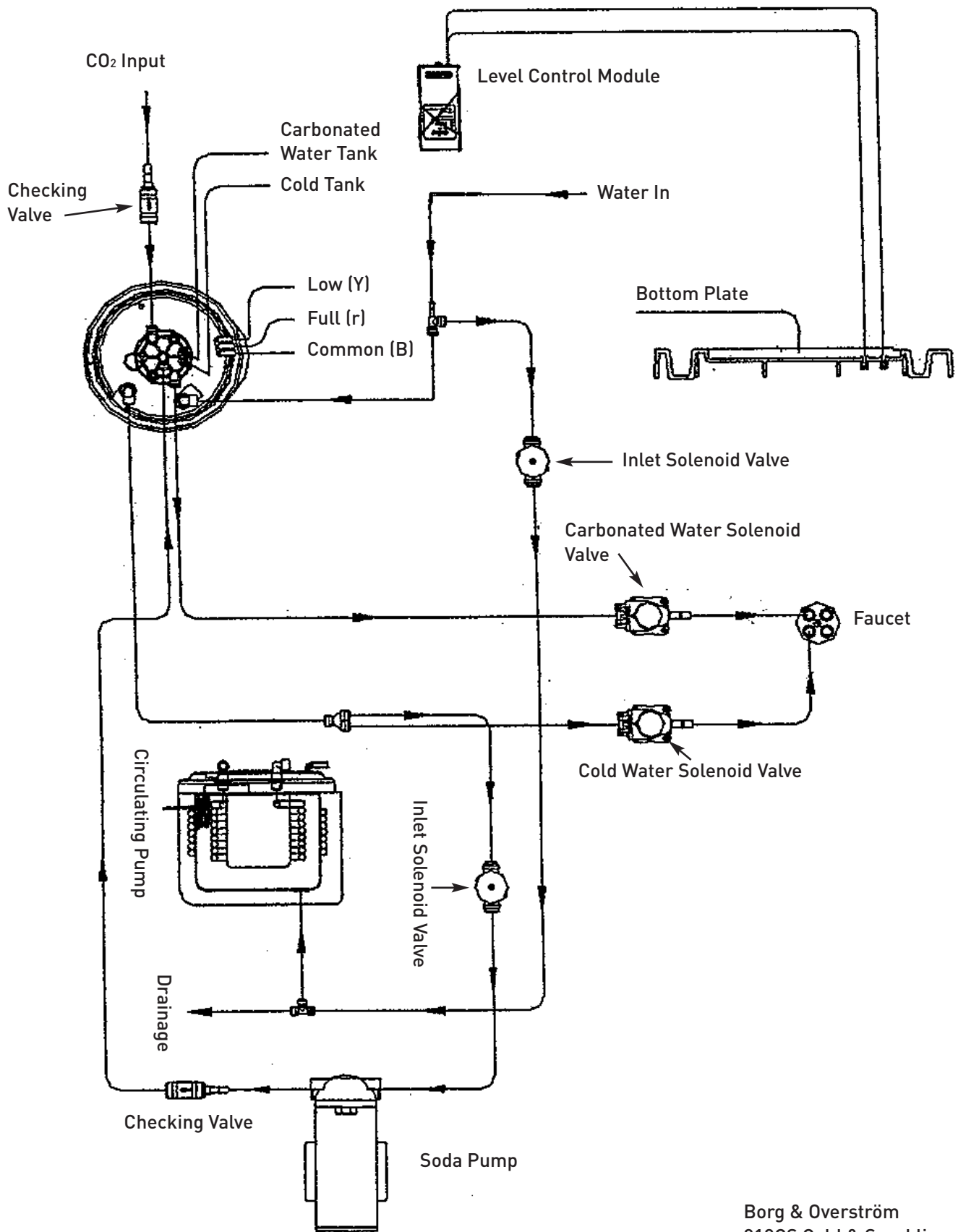


# Electrical Circuit Diagram 2



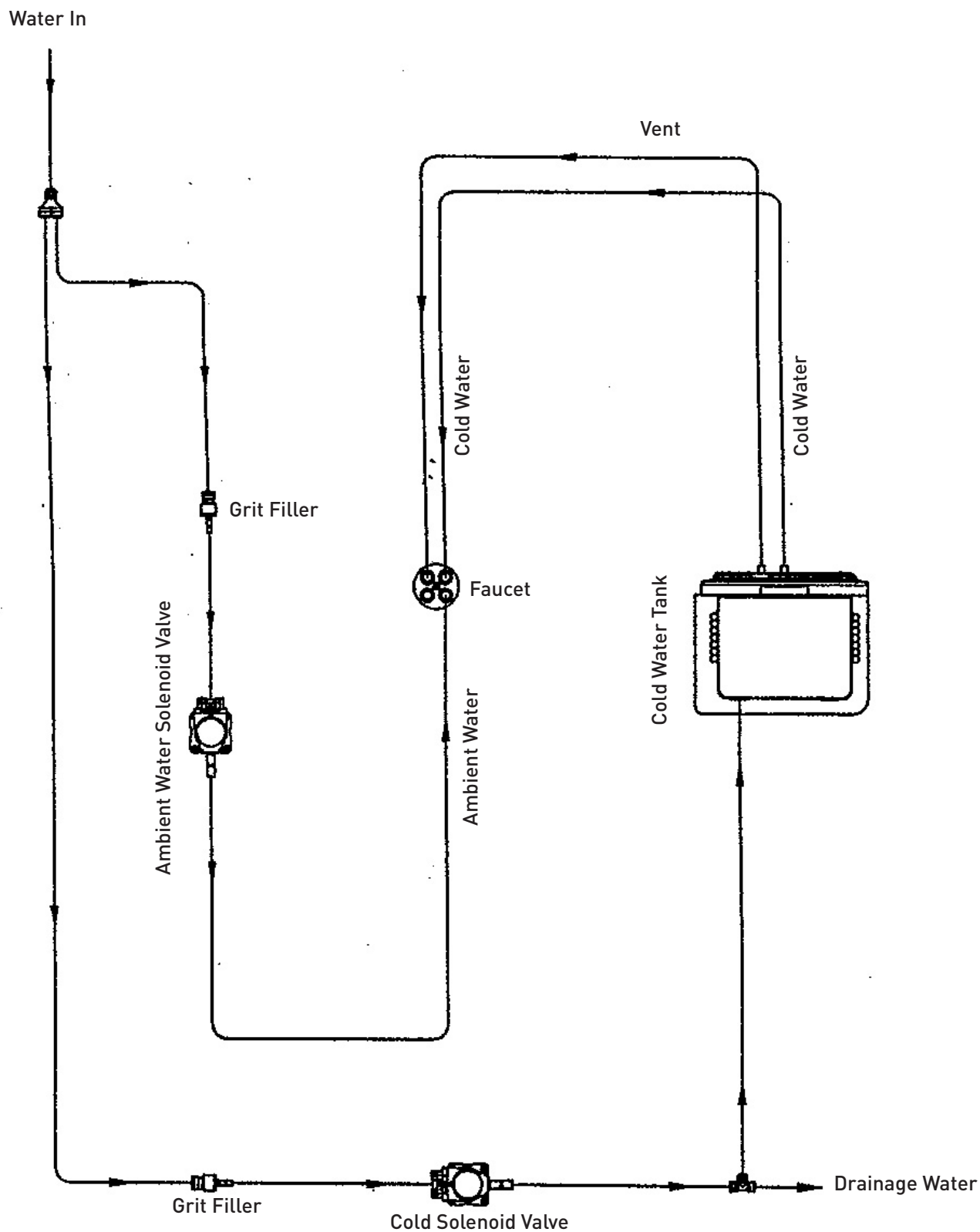
Borg & Overström CW818  
Cold & Ambient  
Electrical Circuit Diagram  
(Series-01)

# Water Pathway Diagram 1



Borg & Overström  
818CS Cold & Sparkling  
Water Pathway Diagram  
(Series - 01)  
Azure UK

## Water Pathway Diagram 2



Borg & Overström  
CW818 Cold & Ambient  
Water Pathway Diagram  
(Series – 01)  
Azure UK

# Technical Manual

## 818 Sport

# Section 6

Azure Part No	Azure Ref	Quantity			Exploded component view reference		
		818		828			
		CW	CS		818CS	818CW	828
123185	Top Panel Black		1		P1		
120815	Front Panel-Silver		1		P2		
126826	Keypad Panel - Black		1		P3		
124851	Bottom Panel - Black		1		P4		
125831	Drip Tray set		1		P5		
132449	Single check Valve		1		P6		
121055	Left Side Panel-Black		1		P7		
121856	Right Side Panel - Black		1		P8		
121859	Side Handle-Silver		2		P9		
133513	Faucet		1		P10		
131422	Faucet Back Nut		3		P11		
131643	1/4" Stem Elbow		5		P12		
131426	Twin Drainage Port		1		P13		
131642	1/4" Push Fit Inlet Elbow		1		P14		
131641	1/4" Push Fit Inlet Connector		2		P15		
131647	1/4" Push Fit Elbow		2		P16		
174312	PCB Rear Cover		1		P17		
194412	1/4" Grit Filter		1		P18		
131648	1/4" Push Fit Y Joint		1		P19		
134591	PVC Pipe Sleeving		3		P20		
131649	1/4" Push Fit Tee		2		P21		
134592	1/4" LLDPE Water Pipe		9		P22		
134561	Dispense Tube -Large		2		P23		
135718	Pipe Insulation		1		P24		
127851	Top Frame		1		M1		
127852	Front Frame Support		2		M2		
127853	Front Frame Crossmember		1		M3		
184621	Solenoid Mounting Bracket		1		M4		
122836	Back Panel		1		M5		
181121	3.0 x 8 RHD S/T Screw		4		M6		
181126	4.0 x 12 RHD s/T Screw		#		M7		
1811127	5.0 x 10 RHD S/T Screw		4		M8		
181691	4.0 x 8 RHD S/D Screw		#		M9		
181124	4.0 x 12 S ?S S/T Screw		6		M10		
134603	Copper Tubing		1		M11		
182371	M4 x 7 YP PHD M Screw		2		M12		



Azure Part No	Azure Ref	Quantity			Exploded component view reference		
		818		828			
		CW	CS		818CS	818CW	828
134602	Copper Tubing		1		M13		
181342	4.0 x 20 YP PHD S/T Screw		4		M14		
174316	Dryer		1		M15		
134604	Copper Tubing		1		M16		
181128	3.5 x 18 BA RHD S/T Screw		2		M17		
181129	4.0 x 12 s/s RHD S/T Screw		1		M18		
171222	PCB-Cold & Sparkling		1		E1		
174313	Compressor		1		E2		
173262	Cold Thermostat		1		E3		
174231	Elec Rocker Switch		2		E4		
173248	Solenoid Valve		4		E5		
172152	UK IEC Power Cord Set		1		E6		
174351	Cooling Fan		1		E7		
174331	Condenser		1		E8		
172164	Main Wiring Loom		1		E9		
172163	IEC Socket -Fused		1		E10		
172176	Blue LED Lighting		1		E11		
173311	Level Control Module		1		E12		
172166	Control Wiring Loom		1		E13		
165240	Cold Tank Set (Complete)		1		C1		
184421	Top Bracket-Rear		1		C2		
184222	Top Bracket-Front		1		C3		
133423	Cold Tank Lid-Outer		1		C4		
134601	DC Cold Coil		1		C5		
131642	1/4" Push fit Inlet Elbow		2		C6		
462739	1/4" Clip		2		C7		
131641	1/4" Push Fit Inlet Connector		1		C8		
183423	Large Back Nut		3		C9		
174341	Thermostat Sleeve		1		C10		
133421	Cold Tank Coller		1		C11		
135732	Cold Tank Insulation -Top		1		C12		
135731	Cold Tank Insulation		1		C13		
131651	Cold Tank Outlet		1		C14		
168181	Carbonator Tank		1		C15		
174380	Diaphragm Pump		1		C16		
181125	4.0 x 16 S/S RHD S/T Screw		8		C17		

Azure Part No	Azure Ref	Quantity			Exploded component view reference		
		818		828			
		CW	CS		818CS	818CW	828
174310	DC Tank Pump Set		1		C18		
131581	Thermostat Sleeve Cap		1		C19		
132448	Single Check Valve		2		C20		
181131	4.0 x 25 RHD S/T Screw		3		C21		
131643	1/4" Stem Elbow		5		C22		
131652	1/4" x 3/8" Male Thread Elbow		2		C23		
174385	Pump power Pack		1		C24		
184619	Pump Power Pack Bracket		1		C25		
181132	4.0 x 12 RHD S/T Screw		2		C26		
181133	3.2 x 32 RHD S?T Screw		2		C27		
173271	Level Sensor Probe		3		C28		
Duplicate	1/4" LLDPE Water pipe		3		C29		
Duplicate	Pipe Insulation		2		C30		
135722	Pipe Insulation		1		C31		
131569	Cold Tank outlet Seal		1		C32		
134609	Capillary Tube		1		C33		
134593	DC Coil Extension Tube		1		C34		
131431	Pipe Clip		1		C35		
131427	DC Tank Pump Connector		1		C36		
134587	Connector Elbow		1		C37		
131582	Tank Lid Bung		1		C38		
172181	Keypad membrane		1		O1		
135717	Insulation Sleeve		1		O2		
123185	Top Panel-Black	1				P1	
120815	Front Panel -Silver	1				P2	
126826	Keypad Panel-Black	1				P3	
124851	Bottom Panel-Black	1				P4	
125831	Drip Tray Set	1				P5	
132449	Single Check Valve	1				P6	
121855	Left side Panel-Black	1				P7	
121856	Right Side Panel-Black	1				P8	
121859	Side Panel Silver	2				P9	
133514	Faucet	1				P10	
131422	Faucet Back Nut	2				P11	
131643	1/4" Stem Elbow	3				P12	
131426	Twin drainage Port	1				P13	

Azure Part No	Azure Ref	Quantity			Exploded component view reference		
		818		828			
		CW	CS		818CS	818CW	828
131581	Faucet Bung	1				P14	
131641	1/4" Push fit inlet Connector	2				P15	
134565	Dispense Tube-Large	1				P16	
174312	PCB Rear Cover	1				P17	
194121	1/4" Grit Filter	1				P18	
131649	1/4" Push fit Tee	1				P19	
134592	1/4" LLDPE Water pipe	3				P20	
131649	1/4" Push Fit Elbow	1				P21	
127851	Top Frame	1				M1	
127852	Front Frame Support	2				M2	
127853	Front Frame Crossmember	1				M3	
184621	Solenoid Mounting Bracket	1				M4	
122836	Back Panel	1				M5	
181121	3.0 x 8 RHD S/T Screw	4				M6	
181126	4.0 x 12 RHD S/T Screw	#				M7	
181127	5.0 x 12 RHD S/T Screw	4				M8	
181681	4.0 x 8 BA RHD S/T Screw	#				M9	
181124	4.0 x 12 s/s RHD S/T Screw	6				M10	
134606	Copper Tubing	1				M11	
182371	M4 x 7 YP PHD S/T Screw	2				M12	
134602	Copper Tubing	1				M13	
181342	M4 x 20 YP PHD S/T Screw	1				M14	
174316	Dryer	2				M15	
134604	Copper Tubing	1				M16	
171221	PCB-Cold and Ambient	1				E1	
174313	Compressor	1				E2	
173262	Cold Thermostat	1				E3	
174231	Elec Rocker Switch	1				E4	
173248	Solenoid Valve	2				E5	
172152	UK IEC Power Cord Set	1				E6	
174351	Cooling Fan	1				E7	
174331	Condenser	1				E8	
172165	Main Wiring Loom	1				E9	
172613	IEC Socket -Fused	1				E10	
172177	Blue LED Lighting	1				E11	
165250	Cold Tank Set (Complete)	1				C1	

Azure Part No	Azure Ref	Quantity			Exploded component view reference		
		818		828			
		CW	CS		818CS	818CW	828
184422	Top Bracket-Front	1				C3	
133424	Cold Tank Lid	1				C4	
134564	Dispense Tube	1				C5	
135732	Cold Tank Insulation -Top	1				C6	
135731	Cold Tank Insulation	1				C7	
133421	Cold Tank Coller	1				C8	
183423	Large Back Nut	1				C9	
174341	Thermostat Sleeve	1				C10	
134605	Capillary Tube	1				C11	
131581	Thermostat Sleeve Cap	1				C12	
181125	4.0 x 16 S/S RHD S/T Screw	8				C13	
131569	Cold Tank Outlet Seal	1				C14	
131651	Cold Tank Outlet	1				C15	
134592	1/4" LLDPE Water Pipe	3				C16	
131649	1/4" Push Fit Tee	1				C17	
134566	Vent Tube	1				C18	
135722	Pipe Insulation	1				C19	
135722	Pipe Insulation	1				C20	
191161	PCB - Cold & Ambient	1				O1	
135722	Pipe Insulation	1				O2	
172148	Euro IEC Power Cord Set	1	1		E6	E6	
	User Manual	1	1				
128981	B & O Carton	1	1				
128904	Polybag	1	1				
193221	CO2 Regulator	0	1				
120821	Front Infill Panel-Black			1			B3
184542	Spring Cap			1			B6
184543	Cup Retaining Ring			1			B5
184544	Spring Base Plate			1			B8
120932	Cup Dispenser Top Panel-Black			1			B4
184545	Spring			1			B3
120816	Door Panel-Silver			1			B2
184622	Door Magnetic Catch			2			B9
131341	3.0 x 10 BZP UK S/T Screw			2			B10
181341	3.0 x 8 YP PHD S/T Screw			6			B11
181134	4.0 X 12 BZP PHD S/T Screw			5			B12

Azure Part No	Azure Ref	Quantity			Exploded component view reference		
		818		828			
		CW	CS		818CS	818CW	828
184532	Adjustable Foot			4			B13
184411	Grommet			2			B14
182374	3.5 x 10 YP RHD S/D Screw			1			B15
	Cabinet			1			B1
193186	Level sensor (Complete)			1			L1
131568	Drain Connector			1			B16
184641	Drain Tube Fastener			1			B17
134571	Drain Tube Fastener	0	0	1			B18
125833	Drip Tray (Only) c/w Drainage	0	0	1			B19
171231	Level Sensor PCB						
				-1			
174309	Level Sensor Enclosure			-1			
174308	Level Sensor Float Valve			-1			
193187	Level Sensor Container (Only)			-1			
193222	CO2 Regulator & Gauge			-1			
193323	CO2 Adaptor			-1			
	Adaptor Washer			-1			

# Technical Manual

## 818 Sport

# Section 7

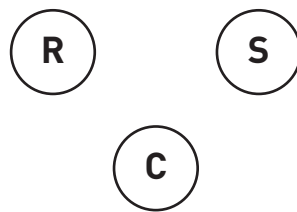
# Azure Technical Advice

## If the Compressor does not run:

1. Check the LED display. For Cold & Ambient models the green (top) LED should always be on and the Yellow (Bottom) when cooling is called for. If the green is off then check the machines main power supply and the on/off switch.

For the Hot & Cold models the green (top) LED should always be on. If off, check the machines main power supply and the COLD on/off switch.

2. Switching on the Compressor measure the current draw. No operation, but a high draw indicates a jammed compressor [contact Azure Technical Support].
3. The wiring loom can be traced and the live supply check periodically moving towards the compressor (if there is a break at the Cold Thermostat turn the screw clockwise and check whether this closes the circuit. If this doesn't even when at max, the thermostat should be replaced. Alternatively, for testing purposes only, the thermostat could be bridged).
4. Remove the compressor relay cover and carefully remove the relays. If the power has been even recently connected to the compressor, the solid stat relay will be energised and will need discharging.
5. Check the Compressor resistance readings



Approx readings could be:     R-C 12ohms  
                                         S-C 34ohms  
                                         R-S 46 Ohms (sum of both)

**N.B. There should always be some variation between compressors. What should be identified is large discrepancies/unbalanced readings.**

Also, especially in the case of large discrepancies/unbalanced readings, check for continuity between any of the terminals and the compressor casing. A current will indicate a shorted winding (Contact Azure Technical support).

6. Checking the relays:  
**Caution: Ensure the larger relay is discharged if recently energised.** (This can be discharged by 2MR, 2W resister in the circuit).

Clearly, the best and surest way to test the relays is to replace them one by one and check the compressor operation. Otherwise, each relay component can be basically tested using a meter

The Solid State Relay should read approx	3-6 closed circuit
	3 $\approx$ 36 $\Omega$ (Ohms)
The Klichson (overload) should read approx	$\approx$ 1.7 $\Omega$ (Ohms)

7. Ensure the terminals are clean and good contact is made.

## If the Compressor Does Run

(Presuming that the Cold water is not being cooled sufficiently)

1. Check the small pipe on the 'high' side of the compressor. This should be quite warm after several minutes of normal operation.
2. Following it to the condenser, check the condenser temperature. Normally the beginning will be warmer, cooling off towards the end.
  - No or very low temperature could indicate a low refrigerant charge. A low current draw would indicate this. (Contact Azure Technical Support)
  - An overly high temperature could indicate a blockage; A high current draw would confirm this. (Contact Azure Technical Support).
3. Continue to follow the pipe work from the end of the condenser to the dryer.
  - A frozen / iced dryer will indicate a blockage (Contact Azure Technical Support) Again; a high current draw would confirm this.
4. The dryer exits into the capillary tube. Check this for restrictions and NB: This has a very small bore.
5. The Capillary enters the evaporator. This can be checked visually for any obvious signs of deterioration.
6. The evaporator connects back to the 'low' side of the Compressor via the suction pipes. Check this for excessive icing.

Excessive icing could indicate a refrigerant overcharge (Contact Azure Technical Support).



# CE EU Declaration of Conformity CE

*according to the EMC Directive 89/336/EEC*

For the following equipment:

Product: Compressor Water Dispenser  
 Type Designation/ Trademark: CW-818 series  
 Manufacturer Name: Champ Design Co., Ltd.  
 Manufacturer Address: No.12, Ta Yeh Street, Ta Fa Industrial District,  
Ta Liao Hsiang, Kaohsiung Hsien, Taiwan

is herewith confirmed to comply with the requirements set out in the Council Directive 73/23/EEC for electrical equipment used within certain voltage limits and the Amendment Directive 93/68/EEC. For the evaluation of the compliance with this Directives, the following standards was applied:

EN 55014:1993  
 EN 55104:1995  
 EN 61000-3-2:1995  
 EN 61000-3-3:1995

Responsible for making this declaration is the : Lu Jui-Huang

Manufacturer ☒ Authorized representative established within the EU ☐

Authorized representative established within the EU (if applicable):

Company Name: Champ Design Co. Ltd.  
 Company address: No. 12 Ta Yeh Street, Ta Fa Industrial District  
Ta Liao Hsiang, Kaohsiung Hsien, Taiwan

Person responsible for making this declaration

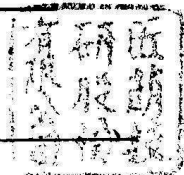
Name Surname: Wu Fong Yu  
 Position Title: President

Kaohsiung, Taiwan 29.01.2008

Place

Date

Wu Fong Yu  
 Company name and signatures





**ELECTRONICS TESTING CENTER,  
TAIWAN**

5, Hsin Ho 2nd Rd., An Pin Industrial District,  
Tainan City, Taiwan 70248  
<http://www.etc.org.tw>  
06-292-5787

# *Certificate*

of Directive 2002/95/EC (RoHS) Compliance

**This is to certify enclosure(s) are in compliance with Directive 2002/95/EC on the Restriction of The Use of Certain Hazardous Substance (RoHS) in Electrical and Electronic Equipment.**

**Applicant: Champ Design Co.,Ltd.**

No.12, Ta-Yeh Street, Ta Fa Industrial  
District, Kaohsiung Hsien, Taiwan 831, R.O.C

**Product/Sample:** Water Dispenser

**Style/Type:** CW-818/PR

**Country of Original:** Taiwan

**Goods Export to:** Europe

**Certificate No:** 08-12-NEC-001

**Date of Issue:** March 27, 2009

This certificate of conformity is based on evaluated sample(s) of the product mentioned above. It does not imply the assessment of production of the product. The result of this evaluation is available on the RoHS Assessment Report, which is in conformity with 2005/618/EC Article 1, amending RoHS Directive 2002/95/EC.

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**Manager**  
**Electronics Testing Center, Taiwan**



## Notes





# INSTALLATION & OPERATION GUIDE

## 818 SPORT MODELS

### **Technical Support**

Available 0700-1700 Monday to Friday

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A Z U R E